June 9, 1913.

City Treasurer

Schedule B. Exhibit 1.

Electrical-

Schedule B. Exhibit 2.

Schedule O:

Schedule C. Exhibit 1.

\$826,592.59

Store Room

Gas Coal Stock

Lubricating Oil

Deduct: Excess Credit on Tar Barrels.

General Consumer

City Public Buildings Street Lights

City Public Buildings

Prepayment

Gas Stove Mdse. Gas Oil Stock

\$112,000.00

REPORT OF EXAMINER OF THE NORWICH GAS AND ELECTRIC PLANT

The Net Profits Have Steadily Increased -- The Total Net Profits Amount to \$378,605.85 -- Profits for Last Nine Months, \$27,277.02 -- A Change Recommended in Manner of Keeping Departmental Accounts

To the Board of Commissioners of the Gas and Electrical Department, Norwich, Connecticut.

In accordance with your instructions I have made an examination of the books and records of the Gas and Electrical Department of Norwich, Connecticut, for the purpose of determining the Book Value of the plant at April 30, 1913, and the profits from operation from the period from July 1, 1904 to April 30, 1913, inclusive.

Inasmuch as the books have been regularly audited each year, you decided that it would not be necessary for me to verify the correctness of the various books and accounts and therefore I have taken

ness of the various books and accounts, and, therefore, I have taken the totals of the various accounts, as shown by the books, to be correct and I certify, only, that the various schedules and exhibits included in this report are in accordance with the books. It was at first proposed to have an appraisal of the whole property made, in order to arrive at the exact value of the Plant, but limit-

ation on the time allowed me for the work made this impossible, and that part of the work has been postponed.

I present derewith three Schedules and seven Exhibits as listed in

PROFIT FROM OPERATION.

The net profit for the perior from July 1, 1904 to April 30, 1913, after deducting \$176,666.66 interest paid on the Bonds oustanding against the Plant, amounted to \$378,605.85 (exclsive of depreciation) as shown in Schedule A, Exhibit I. This net profit for each of the nine periods was as follows:

	Percentage
Period Ending Net Profit	of Gross Inco
July 31, 1905 (13 months)\$31,850.68	28.9
July 31, 1906 31,152.64	27.9
July 31, 1907	29.2
July 31, 1908 41,236.53	30.3
July 31, 1909 33,990.70	25.5
July 31, 1910	28.9
July 31, 1911	29:5
July 31, 1912 55,563.40	33.0
April 30, 1913 (9 months) 60,574.75	40.4

From the above statement it will be seen that there has been a steady increase in the net profits of the Plant from the beginning, with the exception of the year ending July 31, 1909, the decrease in net profits of that year being caused by a reduction in rates.

The excess of net profit for the 9 months ending April 30, 1913 over all charges for correcting expenses depressions and provided the statement of the

over all charges for operating, expense, depreciation and a return of 5 percent on the City's investment, amounts to \$27,277.02, as shown in Exhibit 4 of Schedule A. The rapid increase during the last three periods was caused by a very substantial increase in the volume of

electrical business. The total net profit for the nine periods (\$378,605.85) is accounted for as follows: Expended for additions and improvements on

Total improvements paid for from earnings \$190,651.83 17,766.37

The balance charged to the City Treasurer at April 30, 1913 (\$170,-187.65) after reimbursing the City for \$113,406.20 interest paid during the nine years on its \$227,000.00 Panel in the city for \$113,406.20 interest paid during the nine years on its \$227,000.00 Bonds issued to purchase the Plant and \$75,000.00 Notes issued to pay for additional is accounted for in Schedule C. Exhibit 1, which shows a balance on hand at May 15, 1913 with the City Treasurer, after paying all charges, both against the Plant and against the City for interest, of \$75,196.53.

DEPRECIATION.

The Statues of the State of Connecticut (Chap. 122 Sec. 1987, Revision of 1902) provide that five percent, of the cost of the Plant shall be set aside each year for depreciation.

Through error this 5 percent has been figured upon the cost of the City's equity in the Plant (\$227,000,00) plus the cost of additions, instead of upon the +otal cost of the Plant (\$627,000,00) plus the cost

Thus the amounts charge for deprectation since July 1, 1904 aggregate \$121,693.02 instead of \$266,489.91 as they would have if proparly figured, a difference of \$144,796.89.

In Exhibit 4 to Schedule A appended is shown in detail, for nine periods, the net profit necessary to make in order to earn 5 percent on the Citys investment and 5 percent, depreciation, as called for by the Statutes, and the net profit actually made. From this statement it will be seen that during the first six periods the net profits of the plant were not sufficient to cover the requirements of the Statutes, but that during the last three periods the requirements have been fulfilled.

Since it appears that the value of the Plant has been quite well kept up by the replacements and repairs, which have been charged against the operating expenses of the Plant, the five percent. depreciation charged may seem excessive, but inasmuch as the Statute clearly states that depreciation shall be figured at 5 percent, there would seem to be nothing else to do. Still I think that it would be allowable from this time on to deduct from the depreciation charge of each year the cost of actual replacements made during the year.

BOOK VALUE OF PLANT.

The plant was purchased from the Norwich Gas and Electric Company at a compulsory sale, and the price paid was decided by the Courts. Inasmuch as the Court decided that the equity in the property, which carried a \$400,000.00 mortgage, was worth \$199,000.00, the total value of the Plant at that time must have been \$590,000.00, to which must be added the cost of litigation and additional personal property purchased amounting to \$37,000:00, which would make the value of the property \$627.000.00 at the time City took possession, July 1, 1904. From this amount must be deducted the 5 percent, per annua charged for depreciation, amounting, in the nine years, to \$266,489.91, and to it must be added the cost of Additions and Improvements during the same period, amounting to \$265,651.83, which makes the book value of the Plant at April 36, 1913, \$626,161.92.

BONDS OUTSTANDING AGAINST PLANT.

As mentioned above, at the time the City took over the Plant there was outstanding against the Plant a mortgage of \$400,000.00, which still remains as a liability of the Plant, although the City did not guarantee the mortgage at the time of purchase. Nevertheless the City will have to take up this mortgage at maturity or let the Plant go under foreclosure sale, which it naturally would not do as the Plant is worth much more than the amount of the mortgage. This mortgage has never been considered as a liability on the general books of the Plant, although the semi-annual interest amounting to \$20,000.00 a year has regularly been paid from the earnings of the

Therefore when the books for the Plant were first opened the liabilities were too small by the amount of this mortgage and the assets were too small by a like amount, since the book value of the Plant did not include this amont.

GENERAL OBSERVATION.

A reduction of 2 cents in the price of electricity would decrease the gross earnings of the Plant approximately \$11,500.00, based on the earnings from Electric light sales from January 1, 1912 to December 31, 1912. A reduction in the gas rate of 10 cents would

Considerable trouble was experienced in reconciling the balance charged against the City Treasurer on the books of the Plant with the balance shown on the Treasurer's books. I therefore recommend that the following Journal entries be made upon the books of the Plant in order to bring them into conformity with the books of the City City Treasurer

to City's Investment (Cost of Equity) To charge City Treasurer with amount received from City to pay for additions and improve-

ments (1904-5). City's Investment (Cost of Equity) to City Treasurer \$37,000.00 To credit City Treasurer with amount repaid City

to pay off notes (1910). Profit and Loss \$4,197.32 to City Treasurer To credit City Treasurer with items paid by Finance Dept. as follows: Loss on sub-lease of old office.

Premiums on Surety Bonds Damage Suit Settled 2,664.65 \$4,197.33

to Profit and Loss To charge City Treasurer with interest received in Sinking and Reserve Funds. The amount of interest received on these Funds should be obtained from the City Treasurer each year and charged to him on the books

I also recommend that the following Journal entries be entered upon the books of the Plant in order that they may accurately set forth the true condition of affairs of the Plant;

Plant Account To Bonds Gutstanding \$400,000.00 To charge former account with that part of the cost of the Plant not entered upon the books at the time City took over the Plant.

To Plant Account \$1:44,799.89 To credit the latter account with the proper amount of depreciation as required by the Statutes.

I wish to express my appreciation of the uniform courtesy shown me by the employees of the City, at both the office of the Plant and of the City Treasurer. Respectfully submitted, igned) ARTHUR V. GRIMES, Certified Public Accountant.

SCHEDULE "A."

\$7,269.75

5,014,67

4.10

CONSOLIDATED PROFIT AND LOSS ACCOUNTS FOR THE PE-RIODS FROM JULY 1, 1904, to APRIL 30, 1913.

Net profit from operation for the period, Exhibit 1

INVENTORY. April 30, 1913.

ACCOUNTS RECEIVABLE April 30, 1913

ACCOUNT WITH CITY TREASURER For the Period from July 1, 1904, to April 30,

Received from City to Purchase Plant. \$227,606.00

Received from City for Additions to Plant 112,000.00

Received from City for Running Expenses -1st year 14,378.18

Repaid City, 1904 \$14,378.18 Repaid City, 1910 37,000.00

City's Investment, April 30, 1913.

Net Profit from Operation for Period, exclusive of Depre

Expended for Additions and Improvements on Commissioners'

Profit and Loss Account From July 1, 1904 to April 30, 1913

9			100	1				SCHEL	ULE A, ED	CHIBIT L
۲.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.*	Total.,
	Net carnings from gas opera-									
	tion, Exhibit 2 \$21,770.60	\$18,013.66	\$17,846.61	\$18,534.90	\$15,220.08	\$18,073.24	\$23,718.39	\$23,924.36	\$18,318.74	\$175,420.58
	Net earnings from electrical		7.0							
	operations, Exhibit 3 31,642.47	33,179.74	37,851.91	42,445.82	38,344.36	42,755.41	43,417.00	51,062.47	57,155.84	377,855.02
	Profit on merchandise, store					194, 117			TA JAN ST. ST. ST. ST.	
	room, bad debts, etc., 104.28	40.76	516.59	255.81	426.25	323.33	265.33	576.57	100.17	1,996.91
Ä	Net manufacturing profit 53,517,35	51,152,64	56,215.11	61,236.53	53,990.69	61,151.98	66,870.06	75.563.40	75,574.75	555,272.51
4	Deduct Interest on bonds 21,666.67	7 20,000.00	20,000.00	20,000.00	19,999.99	20,000.00	20,000.00	20,0.000	15,000.00	176,666.66
×	Net operating profit exclusive	1 123								
	of depreciation 31,850.68	31,152.64	36,215.11	41,286.53	33,990.70	41,151.98	46,870.06	55,568.40	60,574.75	378.605.85
	1905, thirteen months.									
	Nine months only.						5 9 W M			

Gas and Electrical Plant of Norwich, Connecticut, Operating Account of Gas Plant July 1, 1904, to April 30, 1913 SCHEDULE A EXHIBIT 9

			E .				CHEDOM	E A, EAR	LDII a.
1905	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.*	Total.
Gross earnings\$47,668 Deduct:	.92 \$48,339.82	\$49,410.47	\$51,769.93	\$50,119.94	\$49,183.67	\$58,612,23	\$55,017.93	\$45,953.97	\$451,076.88
Operating expenses, viz.—									
Manufacturing 21,	197.18 25,233.86	24,415.12	25,244.40	25,164.58	20,684.28	21,141.95	21,435.33	19,482.87	203,999.57
Distribution 2,	898.61 2,447.94	4,243,92	5,210.97	6,124.15	5,892,42	4,297.23	5,042.73	4,694,56	40,852.53
General expenses	902.53 2,644.36	2,904.82	2,779.66	3,611.13	4,583,73	4,454.66	4,615.51	3,457.50	80,804.20
Total operating expenses 25, Net earnings from operation	998.32 30,326.16	31,563.86	33,235.03	34,899.86	31,110.43	29,893.84	31,098.57	27,635.23	275,656.30
	770.60 18,013.66	17,846.61	18,534.90	15,220.08	18,073.24	23,718.39	28,924.36	18,318.74	175,420,58

Gas and Electrical Plant of Norwich, Connecticut, Operating Account of Electrical Plant July 1, 1904 to

				100					SCHEDUL	E A, EXH	IBIT 3.	
		1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.*	Total	
	Gross earnings	.\$59,027.18	\$63,364.78	\$74,600.81	\$84,383.60	\$82,819.82	\$89,421.07	\$105,393,61	\$113,167.92	\$103,788.53	\$775,967.32	1
	Manufacturing	. 21,498.34	22,526.86	27,879.33	29,327,47	20,831.34	33,342.94	/ 49,190.06	47,677.49	36,330.44	298,599.27	
	Distribution	. 4,393.85	3,751.18	4,911.01	8,650.93	7,911.03	7,356.35	6,901.94	7.867.16	4,930.85	56,674.30	
	General expenses	. 1,497.52	3,907.00	3,958.56	3,959,38	5,733.09	5,966.37	5,884.61	6,560.80	5,371.40	42,838.73	
ŀ	Total operating expenses Net earnings from operat-	. 27,384.71	30,185.04	36,748.90	41,937.78	44,475.46	46,665,66	61,976.61	62,105.45	46,632.69	398,112.30	
	in carried to Exhibit 1	. 31,642.47	33,179.74	37,851.91	42,445.82	38,344.36	42,755.41	43,417.00	51,062.47	- 57,155.84	377,855.02	

Statement Showing Proper Charge For Depreciation and Necessary Return on City Investment in the Period From July 1, 1904 to April 30, 1913

Year ending	City's Inves ment	Necessary Returns	Book Value of Plant Beginning of year	Deprectation	Necessary Profit from Operation	Actual Prof from Operation	Excess or Deficiency
1905	\$353,378.18	\$17,668.91	\$627,000.00	\$31,350.00	\$49,018.91	\$31,850.68	\$17,168.23*
1906	339,000.00	16,950,00	605,000.00	30,269,16	47,219.16	31,152.64	16,066.52*
1907	339.500.00	16,950.00	633,558.75	31,677.91	48,627.91	36,215.11	12,412.80*
1908	339,000.00	16,950,00	628,811,28	31,440.56	48,390.56	41,236.53	7,154.03*
1909	339,000.00	16.950,00	617,510.07	30,875.50	47,825.50	33,990.70	13,834.80*
1910	339,000.00	16,950,00	599,518.65	29,975,93	46,925.93	41.151.98	5.773.95*
1911	302,000.00	15,100,00	584.797.80	29,233.89	44,339,89	46,870 06	2,530.17
1912	302,000.00	15,100.00	593,764.73	29,688.23	44,788.23	55,563,40	10,775.17
1913z	302,000.00	11,325.00	592,606.34	21,972.73	33,297.73z	60,574.75z	27,277.02z
Amount of depreciation charged		,		\$266,489,91	\$410,493.82	\$378,605.85	\$31,827.97

Additional amount to be charged....... zFor the nine months from August 1, 1913 to April 30, 1913. *Deficiency or loss. Section 1987 revised statute of 1902.

BALANCE SHEET.

April 30, 1913.

Deposited with City Treasurer-Schedule C 170,187.65 \$826,592.59

\$144.796.89

ASSETS. Plant July 1, 1904......\$627,000.00 Add: Additions to Plant July 1, '04, to April 80, '13 265,651.83

Deduct: Depreciation at 5 per cent, per annum on Plant from July 1, 04, to April 30, '13, , , 266,489.91

Book Value of Plant April 30, 1913,,,,,,,,,, Botler Insurance Unexpired

LIABILITIES. Investment of City of Norwich-Schedule C\$302,000.00 Bonds outstanding against Plant 400,000.00 Interest Accrued on Bonds 6,666.66 Accounts Payable 5,064.09 Guarantee Deposits 727.50 Water Tax Accrued Surplus or Profit, July 1, 1904, to April 1913, after deducting Bond Interest and Depreciation-Schedule A..... 112,115.94

Total Credits\$510,418.20 Balance charged to City Treasurer April 30, 1913, Exh. 1.... 170,187.66 CASH ACCOUNT OF CITY TREASURER. \$680,605,85 May 15, 1913.

ciation Charges, Schedule A 378,605.85

Total Debits\$680,605.85 CREDIT. Paid on Plant, July 1, 1904\$227,000.00

Expended for Mdse, and Other Assets on Hand April 30, 1913 17,766.37

Charged City Treasurer per Schedule C\$170,187.65 Add: Interest Received from Sinking and Reserve Funds.... 6,807.92 Receipts May 1 to 15, 1913..... \$192,800.05 Deduct: Amounts expended for Gas and Electrical Dept, not entered on the books, viz.:

Loss on sub-lease of old Office...... \$1,285.17 Premiums paid on Surety Bonds Damage Suit Settled Interest paid on Bonds and Notes issued by City to pay for Plant and Additions 113,406.20

- 117,608.53 Net Balance as per City Treasurer's Books...... \$75,136.53